



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,776	07/09/2001	Heinrich Hummel	449122002600	5950
25227	7590	03/28/2005	EXAMINER	
MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 300 MCLEAN, VA 22102			HOANG, THAI D	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/806,776

Applicant(s)

HUMMEL, HEINRICH

Examiner

Thai D Hoang

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Application filed on 07/09/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

Claims 1 and 14 are objected to because of the following informalities:

The statement "the former information item" recited in claim 1, line 15 and claim 14, lines 14-15 should be changed to -- the former forwarding information item --

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, lines 5-8 and 14, lines 4-7 recite "an allocation rule by means of the routes determined, by means of which rule a forwarding information item is allocated both to a link leading in the direction of the destination node and to a new forwarding information item for each destination network node" is confusing. It is not clear what is meant by "*a forwarding information item is allocated both to a link leading in the direction of the destination node and to a new forwarding information item for each destination network node*"

The statement "route-specific forwarding information" and "new route-specific forwarding information" recited in claims 2-7 and 10 is confusing. It is not clear what is

meant by "route-specific forwarding information" and "new route-specific forwarding information".

The statement "transmitting a setup message from an originating network node to the destination network nodes for preparing a subsequent transmission of data, such that in a network node receiving the setup message" is confusing. It is not clear what is meant by "*such that in a network node receiving the setup message*".

Claims 2-13 are rejected because they depend on rejected claim 1.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14 are rejected under 35 U.S.C. 102(b) as being unpatentable by Spiegel et al, US Patent No. 5,649,108, hereafter referred to as Spiegel.

Regarding claims 1-3, 7 and 14, as best understood, Spiegel discloses a method and system called "Combined progressive and source routing control for connection-oriented communications networks". The method comprising:

determining routes for transmission from a source node (A) to a destination node (G), fig. 1, fig. 4, steps 40-41, col. 2, lines 39-41 and 62-64, col. 3, lines 32-37  
(determining routes to destination network nodes of connection destinations for the network nodes)

at each intermediate node connection setup packets are received via incoming node interfaces and through the switch fabric to switch controller 12 where the packets are updated and their contents are examined for deciding which output port to choose for a connection to be established in accordance with the routing table 13. The forwarding table 20 at each line interface 10 consists of entries each mapping an incoming VCI to an output port identifier and an outgoing VCI. Once an output port has been chosen for a connection setup packet received through an incoming line interface, the switch controller updates the forwarding table of that line interface, so that cells can subsequently be routed through the switch fabric to the outgoing line interface of the chosen output port and transported across the network to the destination; fig 2, 7a-7d, fig. 4, steps 43-49, col. 6, lines 9-29, col. 7, lines 1-27 (allocating, in the network nodes, an allocation rule by means of the routes determined, by means of which rule a forwarding information item is allocated both to a link leading in the direction of the destination node and to a new forwarding information item for each destination network node)

transmitting setup packets to the next node, fig. 4, step 50 (transmitting a setup message from an originating network node to the destination network nodes for preparing a subsequent transmission of data, such that in a network node receiving the setup message)

the setup packets (fig. 3) are forwarded to the destination node through intermediate node(s). At each node along the path the information stored in the setup packets is read out and updated; col. 5, line 63 – col. 6, line 36; col. 7, lines 1-27,

algorithm col. 10, line 21 – col. 12, line 38 (a forwarding information item included in the setup message is read out, and using the allocation rule, the setup message is forwarded via a link allocated to this forwarding information item in this network node, after replacement of this forwarding information item by a new forwarding information item allocated to the former information item).

Regarding claims 4-5 and 9-10, as best understood, Spiegel discloses each node comprises a forwarding table 10, routing table 13, and controller 12 to calculate a shortest path and update the information stored in the setup packets and in the routing table, fig. 2-3, col. 5, line 63 – col. 6, line 36, algorithm col. 10, line 21 – col. 12, line 38 (in one of the network nodes a new route-specific forwarding information item allocated to a route-specific forwarding information item is determined by access to a translation table in which a new route-specific forwarding information item is included for each permissible route-specific forwarding information item; wherein during the access to the translation table, the permissible route-specific forwarding information item is used as a table index).

Regarding claims 6 and 11, as best understood, Spiegel discloses the setup packet includes a plurality of parameters (fig. 3). The node comprises a forwarding table 10, routing table 13, and controller 12 calculates a shortest path and update the information stored in the setup packet and in the routing table, fig. 2-3, col. 5, line 63 – col. 6, line 36, algorithm col. 10, line 21 – col. 12, line 38 (wherein, in one of the network nodes, one of a number of translation tables set up in the network node is selected depending on a connection parameter included in the setup message, and a new route-

Art Unit: 2667

specific forwarding information item is determined by means of the selected translation table)

Regarding claim 8, the forwarding table 10, routing table 13, and controller 12 in the network disclosed by Spiegel are inherently based on structure (topology) of the network; algorithm col. 10, line 21 – col. 12, line 38 (wherein the allocation rule is determined and set up in each network node based on information on the structure of the communication network).

Regarding claim 12 and 13, as best understood, the system disclosed by Spiegel is an ATM system; therefore, the setup packet is inherently an ATM packet and transmitted in an ATM network; col. 1, lines 9-13, col. 5, lines 37-47 (wherein the connection setup takes place in an ATM network; wherein a single ATM cell is transmitted as a setup message.)

### ***Conclusion***

The following references are cited to further show the state of the art with respect to the application:

US patent No. 6,496,479 B1, Shionozaki discloses "Network resource reservation control method and apparatus, receiving terminal, sending terminal, and relay apparatus."

US patent No. 6,185,210 B1, Troxel discloses "Virtual circuit management for multi-point delivery in a network system."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-18:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang

KWANG BIN YAO  
PRIMARY EXAMINER  
KWANG BIN YAO  
